

Carnegie Institute of Technology

Pittsburgh, Pa.

CIRCULAR OF GENERAL INFORMATION

DAY COURSES, 1923-1924

This Circular is sent to every applicant, together with the acknowledgment of his application for admission. It should be read carefully and kept for reference on various questions concerning entrance. A separate circular covering night courses is printed and will be sent to those interested.

I. COURSES OFFERED

In its various Colleges the Carnegie Institute of Technology offers the following day courses:

COLLEGE OF FINE ARTS (Open to Men and Women)

Four-year courses leading to the Bachelor's degree:

Architecture	{ Design Construction	Music	{ Instrumental Vocal Composition (Conducting, Organ and Choir Leadership) Teaching Public School Supervision
Painting	{ Figure Mural Portrait Landscape	Drama	{ Acting Playwriting Play Production
Illustration	{ Book and Magazine Commercial Posters	Sculpture	
Applied Art	{ Crafts (Pottery, Jewelry, Weaving) Costume Design and Illustration Normal Art Advertising and Printing Design Interior Decoration, Furniture and Glass Design	Two-year course (leading to Bachelor's degree) Normal Art (for normal school graduates) (See Section IIA)	
		Two-year course. (Certificate offered.) Architecture	

A limited number of qualifying students who are not necessarily high school graduates are admitted to some of the courses. Such students must be candidates for the degree and must show unusual technical proficiency. (See Section II-B).

COLLEGE OF ENGINEERING (Open to Men)

Four-year courses leading to the Bachelor of Science degree:

Chemical Engineering	Electrical Engineering	Co-operative Mining Engineering
Civil Engineering	Mechanical Engineering	Chemistry
Commercial Engineering	Metallurgical Engineering	Physics

Two-year course. (No degree offered). Co-operative Coal Mining (See Section II-B)

COLLEGE OF INDUSTRIES (Open to Men)

Four-year courses leading to the Bachelor of Science degree.

Building Construction	{ Building Construction Electrical Equipment and Construction Heating, Ventilating and Sanitary Equipment Sheet Metal
Machinery Production	{ Sales Works Operation (Forge, Foundry or Machine.) Power Plant Operation

Printing and Publishing

Industrial Education (Training for Teachers.)

Short courses (1 or 2 years). (See Section II-B).

Automobile Maintenance and Operation	Masonry and Concrete
Building Drafting	Mechanical Drafting
Carpentry	Patternmaking
Electric Wiring	Plumbing
Forging	Printing
Foundry	Sheet Metal
Heating and Ventilating	Structural Steel Drafting
	Machine Work

Short and Special courses do not lead to a degree.

MARGARET MORRISON CARNEGIE COLLEGE FOR WOMEN

Four-year courses leading to the Bachelor of Science degree:

*Household Economics	*Costume Economics	Library
*Secretarial Studies	Social Work	Editor-Secretary
	General Science	

* In these departments the course may be arranged to include training for teaching.

Courses for college graduates, leading to the bachelor's degree, are offered in the departments of Secretarial Studies, Household Economics, Costume Economics, General Science and Social Work. (See Section IV).

DIVISION OF COOPERATIVE RESEARCH (Open to Men and Women)

One-year courses for mature students in Personnel Administration and Retail Store Training. (See Section II-B.)

Graduate courses in:

Psychology	Statistics
Education	Personnel (See Section XV).

An intensive course of eleven weeks in Life Insurance Salesmanship is offered for mature students.

New students registered in degree courses in any college of the Institute may enroll in the Reserve Officers' Training Corps, under conditions imposed by the War Department, all of which are very lenient. The military work supplements the academic and technical courses. Military training is offered in the following branches: Engineer Corps Unit, Signal Corps Unit, Motor Transport Unit.

A detailed statement of Admission Requirements will be found in Section II.

II. ADMISSION REQUIREMENTS

A. DEGREE COURSES

1.

Admission to degree courses in all colleges of the Institute requires four years of satisfactory high school preparation or its equivalent, with not less than fifteen Carnegie units. A Carnegie unit represents a subject studied for one school year of from 36 to 40 weeks, four or five times per week, for periods of from 45 to 60 minutes, and requiring two hours of outside preparation for each recitation period.

The requirements for admission to each of the colleges are given in detail below:

COLLEGE OF FINE ARTS

English.....	3 units
History (exclusive of U. S. History and Civics)	1 unit
Foreign Language (Greek, Latin, French, German, Italian, Spanish, 2 units of one).....	2 units
*Electives.....	9 units
Total.....	15 units

The subjects above are required for admission to all courses in the College of Fine Arts. In the Department of Architecture the applicant must also present one and one-half (1½) units in Algebra and one (1) unit in Plane Geometry.

For admission to the two-year course in Normal Art the applicant must have been graduated from a two-year course at an approved Normal School in addition to having completed a four-year high school course or its equivalent, and must present a transcript of his work indicating that a satisfactory standard at the Institute can probably be maintained. Such students will be eligible for the bachelor's degree upon satisfactory completion of the course.

In addition to meeting the scholastic requirements for entrance, in some departments, applicants for admission to the College of Fine Arts may be called upon to pass a competitive technical test prescribed by department concerned. (See Sections V and XVII).

COLLEGE OF ENGINEERING

English.....	3 units
Algebra.....	1½ units
Plane Geometry.....	1 unit
Solid Geometry.....	½ unit
Physics.....	1 unit
Modern Language (French, German, Spanish, Italian, 2 units of one).....	2 units
*Electives.....	6 units
Total.....	15 units

NOTE:—Beginning with September, 1924, chemistry (one year) will be required for admission to the College of Engineering.

COLLEGE OF INDUSTRIES

English.....	3 units
Algebra.....	1½ units
Plane Geometry.....	1 unit
Physics.....	1 unit
*Electives.....	8½ units
Total.....	15 units

NOTE:—Beginning with September, 1924, the requirements for the College of Industries will be the same as those given above for the College of Engineering.

MARGARET MORRISON CARNEGIE COLLEGE FOR WOMEN

English.....	3 units
Plane Geometry.....	1 unit
Algebra.....	1½ units
Foreign Language (Latin, Greek, French, German, Italian, Spanish, 2 units of one).....	2 units
*Electives.....	7½ units
Total.....	15 units

*As elective subjects, the following are acceptable: history, science, mathematics, English (1 additional unit) and foreign language. For vocational subjects, such as shop work, drawing, manual training, cooking, sewing, agriculture, bookkeeping, shorthand and typewriting, only one-half the usual credit is given, and only a limited maximum of credit is allowed for any amount of such work that may be offered. In the College of Fine Arts and that of Engineering a limited amount of credit will be allowed for music, where the work done is of a nature such as to require the usual amount of outside preparation expected for academic subjects. No credit is allowed for physical education. Applicants who are admitted are held responsible for the published entrance requirements of their respective colleges, regardless of notifications from the Committee on Admissions.

SCOPE OF REQUIRED SUBJECTS

For the information and guidance of principals and applicants the scope of work expected in each of the subjects required for the various colleges of the Institute is given below. For the subjects required for each college, see Section II.

1 Elementary Algebra—one unit. Positive and negative numbers; the four fundamental operations; parentheses, equations of the first degree in one unknown; special cases of multiplication and division; factoring; fractions; simultaneous simple equations; graphic solutions; involution; evolution; radicals; and quadratics in one unknown by completing the square.

2 Intermediate Algebra—one-half unit. Theory of exponents; imaginary numbers; quadratics; simultaneous quadratics of types (1) $ax^2 + by^2 = c$, $dx^2 + ey^2 = f$ and (2) $ax^2 + by^2 = c$, $lx + my = n$; properties of quadratics; graphic solutions; ratio and proportion; variation; arithmetic and geometric progressions; and binomial theorem for positive integral exponents (omitting the proof).

The Institute recommends that careful attention throughout the course be given to proofs of principles, accurate results, drilling students in neatness and systematic arrangement and to the correct use of English. The theory of exponents is a topic in which applicants are too often found deficient.

3 Plane Geometry. The first five books of geometry as given in any standard text (Wentworth or Wells). Special importance will be given to geometric constructions and numerical exercises.

4 Solid Geometry. Propositions relating to lines, planes, polyhedrons, cylinders, cones, and the sphere; computation of surfaces and volumes.

(No examination in this subject will be required of candidates who can present satisfactory high school credit for it).

5 Physics. The physics required is that covered by the standard text books on high school physics, such as Milliken and Gale, and Gorten. The course should include lectures, recitations, and problems in mechanics, sound, heat, light, electricity and magnetism, and laboratory exercises in addition to the class work.

6 Chemistry. The student should have covered so much of the subject as is presented in such elementary books as "Foundations of Chemistry," by Blanchard and Wade; "Elementary Chemistry," by Alexander Smith, or "First Principles of Chemistry," by Brownlee and Fuller. Laboratory work should be required.

7 English. The candidate will be examined on (1) his ability to write correct English with due regard to grammar, spelling, punctuation, sentence structure and paragraphing; and (2) his knowledge of literature. The literature required is the equivalent of the list of reading in the Uniform Entrance Requirements. This list may be obtained from any publisher of text-books. In the case of students whose preparation has been irregular substitutes of equal literary value will be accepted for the books on this list.

8 Modern Language. Two units (2 years) in one. The examination will consist of (a) translation of a passage of simple prose from the foreign language into good English, (b) translation, into the foreign language, of simple English sentences either based upon the foreign passage (a) or taken from the vocabulary of every-day life; and (c) questions and exercises testing further the student's knowledge both of the forms and of the syntax of foreign language. It is suggested that the first year of preparation should be devoted to grammar (except perhaps the most difficult parts), pronunciation, and elementary reading, and conversation, while the second year should include completion of the grammar, reading of texts of intermediate difficulty, conversation, and review and drill, both oral and written, of forms and syntax by means of a "composition" book or by means of exercises based upon the texts read. It is urged that more emphasis be placed upon accuracy and thoroughness than upon the number of pages covered.

9 History. An examination in one year of General History is required of all students in the College of Fine Arts who, at the end of the freshman year, have an entrance condition in history to remove, or who have to meet at entrance an examination in history. The study of General History should cover the main facts and the telling stages of development from the ancient civilization of the East, through the Middle Ages up to the present, thereby linking Europe with Asia, and America with both.

Text books suggested.

- (1) Robinson, Breasted and Beard:—Outlines of European History; Pt. I, in 2 vols, Pt. II, in 1 vol.
- (2) Wells:—Outline of History.

B. SHORT OR SPECIAL COURSES

1 A limited number of students may be admitted to short courses, bearing on given vocations, in all colleges. Such students are required to present themselves at the office of the director of the college for a personal interview and must show evidence of being able to pursue the course with profit. Such students are not candidates for degrees but must maintain credit standing. In addition, applicants to short courses must meet the following requirements:

College of Fine Arts

2 All applicants for admission as qualifying students must obtain, at a personal interview (see Sections V and XVII), the approval of the Head of the Department and the Director. Such students are not exempt from academic studies and are expected to devote full time and maintain scholarship standing. No scholastic examinations are required for entrance, but a student must be not less than eighteen years of age and must, by passing a technical test (see Section V), give evidence of unusual ability in technical work.

3 Qualifying students may remain in the College only two years as qualifying students and must take the same course as regular students in their departments. At the end of the second year only those students who have each year maintained an acceptable grade of scholarship in general studies and in technical branches will be retained.

4 Those attaining the required standard, or better, will, on the recommendation of their respective faculties, be eligible as regular students, but will be required to remove all entrance conditions before the opening of the final semester of the senior year. (See entrance requirements above).

5 For admission to the two-year (non-degree) course in Architecture the applicant must submit a certified statement, showing that he has been employed for at least two years in an architect's office.

College of Industries

6 Applicants must be nineteen years of age or older, must present evidence of having completed satisfactorily two years of preparatory work or its equivalent and must report at the office of the Director of the College for a personal interview (See Section XVII), to determine his general qualifications for the course desired.

Margaret Morrison Carnegie College for Women

7 Applicants must be at least twenty-two years of age and must have had sufficient scholastic preparation to pass any test the department may assign at a personal interview. (See Section XVII).

College of Engineering

8 The few students who are admitted as special students in Engineering must present evidence of adequate preparation for the work desired and must be at least twenty-five years of age.

9 Applicants for the two-year course in Coal Mining must have a common school education or its equivalent and must have had at least two years' practical experience in or about mines.

Division of Cooperative Research

10 A limited number of mature students with business experience, but who have not fully completed a college course, are considered for admission to the one-year courses in Personnel Administration and Retail Store Training.

III. ENTRANCE PROCEDURE

General:

1 Those able to meet the entrance requirements for degree courses stated in section IIA and contemplating admission to the Institute should write to the Registrar for the necessary forms upon which to make application and submit a record of preparatory school work. When these forms have been returned, properly filled out, they are passed upon by the Committee on Admissions, which admits an applicant either (a) solely on certificate or (b) partially by entrance examination in certain of the required subjects listed for the college concerned. The applicant will be notified in due time of the action of the Committee. (See also Section III, paragraph 7)

2 The applicant is urged to submit his high school certificate as early as possible in the second semester of the senior year, in order that he may know in advance his probable status for admission. Certificates so submitted are followed in June by a supplementary certificate, covering the subjects of the second semester, on a form supplied by the Institute (Form 303). The Committee on Admissions reserves the right to alter its initial action on the basis of the results shown on the supplementary certificate.

3 Applicants who have secured their preparation in foreign schools must submit **official** statements showing the work done. Such statements must include courses pursued, with the number of weeks for each, hours per week and length of class periods, with a record of any laboratory work, and the final grades.

4 A foreign applicant who is unable to satisfy the Committee on Admissions that his preparation has been adequate for the course selected may be admitted to the Institute provisionally, with the distinct understanding that he may be placed in any college and course for which, after personal interview and examination, he may seem fitted.

5 It must be distinctly understood that all preparatory school credentials submitted by an applicant for admission become the permanent property of the Institute and cannot be returned.

6 Any work offered for entrance credit cannot again be used as credit towards graduation. Preparatory school work may not be offered for college credit.

7 Applicants for special or short courses should file application and then proceed in accordance with Sections II-B of this circular.

Admission by Certificate:

8 The Institute maintains no list of accredited preparatory schools, but acts upon each case individually. The previous acceptance of applicants from a preparatory school on certificate alone cannot be taken as a necessary precedent for such action in the future.

9 In general, an applicant will not be admitted on certificate alone who ranks below the upper third of his graduating class, whose grades are not high in all required subjects, who is short in credits or required subjects, whose course shows an excessive amount of vocational work, or who was graduated from a preparatory school more than sixteen months prior to the date at which entrance is desired at the Institute.

10 Certificates from the College Entrance Examination Board and the New York State Board of Regents are taken for full credit, and in place of examination in the case of required subjects, where the examinations were taken not over sixteen months prior to entrance and the grades attained are at least 60 per cent. New York State Principals should be careful to specify on certificates which grades are Regents grades.

Entrance Examinations:

11 Examinations, where prescribed, are not given as an obstacle to entrance, but rather to show the Committee on Admissions whether the applicant is qualified to undertake the course elected, with profit to himself.

12 The results of entrance examinations which have been passed hold good for sixteen months.

13 The passing grade in the entrance examinations is 60 per cent. All examination papers are graded at the Institute.

14 For the College of Fine Arts, the only entrance examination in history which is given, is in General History. Applicants who are conditioned in history or who are required to take an entrance examination in history must remove the condition or meet the examination, either by taking the Institute entrance examination in General History or by passing the College Entrance Examination Board examination in any branch of history which meets the Institute requirement.

15 For the College of Engineering an entrance examination in algebra will be required of all applicants who have not studied algebra in course within two years of the time of entrance to the Institute.

16 A fall applicant may take his entrance examinations in either June or September, or both. Subjects failed in June may be repeated in September. Those failing entrance examinations in June or September, or both, may repeat these examinations in January, entering, if successful, either at the beginning of the second semester (See Section VI) or the following fall. The examination fee is charged at each period at which entrance examinations are taken.

17 The entrance examinations are held at the Institute in June, September and January. These examinations may also be taken in the applicant's own locality, provided the Examiner is notified by June 15th, August 15th or January 10th, respectively, of the exact name, title and address of the educational official who will supervise the tests. It is not necessary that the proctor be a teacher of the subjects in which the applicant is to take examinations, but only a teacher or an official engaged in educational work is acceptable as a proctor.

18 The name of the proctor for out-of-town examinations must be submitted on a form furnished by the Institute. This form **must** be accompanied by the out-of-town examination fee of five dollars; otherwise the proctor's name will not be listed. The proctor of out-of-town examinations is paid a fee by the Institute. All remittances should be made payable to A. N. Heyl, Cashier. Applicants from Allegheny and adjacent counties are required to take the examinations at the Institute.

19 The fee for those taking the examinations at the Institute is three dollars. Those taking examinations in Pittsburgh will report at the office of the Registrar at 8:00 A. M. on the morning of the first day on which they are scheduled for examination, for payment of the fee.

20 No one is admitted to entrance examinations without presenting to the proctor a receipt for the examination fee.

21 Entrance examinations must be taken on the dates set in paragraph 22, whether taken at the Institute or away from Pittsburgh.

22 The schedule for 1923-1924 is as follows:

June 21, 1923; August 30, 1923; January 23, 1924

9:00-10:30	Elementary Algebra
10:30-12:00	Intermediate Algebra
1:00- 3:00	English
3:00- 5:00	Physics
3:00- 5:00	General History

June 22, 1923; August 31, 1923; January 24, 1924

10:00-12:00	Plane Geometry
1:00- 3:00	Foreign Language
3:00- 5:00	Solid Geometry

Entrance Conditions:

23 Conditions imposed by the Committee on Admissions **must** be removed within one year from entrance, except in Foreign Language, where a period to the beginning of the senior year is granted. An applicant will not be admitted with a condition in more than a total of two units. It is recommended that a conditioned fall applicant endeavor to secure instruction during the summer preceding his admission and pass off the condition at the time of the fall entrance examinations.

24 Entrance conditions are removed at the time of the regular entrance examinations, either prior to entrance or during the summer first following admission, or in the case of conditions in elective subjects by presenting school credit in elective subjects (See Section II A, foot note) satisfactory to the Committee on Admissions. It is recommended that applicants conditioned in elective units confer with the Examiner in advance as to the method for removing such conditions.

IV. ADVANCED STANDING PROCEDURE

1 An applicant for admission to advanced standing must meet the entrance requirements of the college he wishes to enter, and must have completed at least one year of work in a collegiate institution of recognized standing; he must present, as soon as possible after the conclusion of his previous college work, a transcript of credits, showing both his entrance record and his college work. This document should be accompanied by a catalogue of the institution previously attended, for the years in which the work was done, with the applicant's name plainly written thereon. The transcript must also be accompanied by a letter of honorable dismissal. Upon the receipt of these documents the Committee on Admissions will review the case and inform the applicant whether he can be accepted for advanced standing.

2 If admitted to advanced standing, the applicant must appear on the date set in the calendar (Section XVII) for rating advanced standing cases. Failure to report on this date will make the admission of the applicant doubtful, except as a freshman student. Dormitory rooms will be available for use at this time for advanced standing applicants who have already made reservation.

3 The number of advanced standing students to be admitted is limited. It should also be borne in mind that in transferring from one institution to another there is almost always a loss of from one semester to one year, due to differences in curricula. No statement as to the exact amount of time which will be required for an advanced standing applicant to complete a

course at the Institute will be given until the applicant has presented himself (if accepted for advanced standing) in the fall.

4 In the College of Fine Arts new students are given no advanced standing in their technical work until the end of the first semester, and will receive no degree credit for this work until they have attained a required standard.

5 Applicants for admission to the College Graduate courses in the Margaret Morrison Carnegie College for Women (see Section I), and to the Normal Art Course for Normal School graduates, in the College of Fine Arts, must file credentials from the institution previously attended, but are not required to report on September 13th for the rating of advanced standing credit. Such students, if admitted, will report directly to the department concerned, after registration. Applicants for the College Graduate courses and applicants for the Normal Art course for Normal School graduates must present a full record of previous work.

6 It is distinctly to be understood that all transcripts of credits submitted by applicants for advanced standing become the permanent property of the Institute and cannot be taken from the files.

7 Students who contemplate entering the Institute with advanced standing in September may find it possible to adjust, in advance, differences between their past and future curricula by taking work in the Summer Session. (See Section XIII).

V. PERSONAL INTERVIEW AND TECHNICAL TEST

1 In the College of Fine Arts a personal interview with the Director of the College is required before the applicant is finally admitted.

2 Personal interviews may be had on September 11, 12, 13 or 14, at the office of the Director of the College, or may be arranged for by appointment with the Director of the College at any time earlier.

3 In the College of Fine Arts, in addition to the personal interview, there is required a Technical Test for all departments except that of Architecture. This test is for the purpose of determining the fitness of the applicant for the work desired,

as the enrollment in some departments is limited. No special preparation immediately in advance of the technical test is expected. The applicant is required to appear for this test in advance of registration and **entirely at his own risk**. The dates for the test are printed in the calendar, Section XVII of this circular. The facilities of the College of Fine Arts are placed at the disposal of the applicant during the test without charge. Information concerning rooms in Dormitories or private homes for the period of the technical test can be secured from the office of the Dean of Men or the Dean of Women after the applicant's arrival.

VI. THE ACADEMIC YEAR

1 The academic year at the Carnegie Institute of Technology is divided into two semesters and a summer session.

2 Regular students are expected to be in attendance during the two semesters. Attendance at the Summer Session is optional, except for freshmen who enter at mid-year.

3 In order to make provision for students who are graduated from high school at mid-year and for those who finish their high school course in June but are unable to enter upon their college work before the following February, the Institute admits new students not only in the fall but also at the opening of the second semester. By attending the eight weeks Summer Session of the Carnegie Institute of Technology for two consecutive summers, it is possible for students entering in February to be graduated in three and one-half years.

4 In general, students entering the College of Industries, or the College of Engineering at mid-year will take first semester freshman subjects from February to June. During the first summer, they will carry certain subjects of the second semester freshman schedule (in the College of Industries and

the College of Engineering, Mathematics, Chemistry, and possibly some shop work). During the following college year, such students will carry the regular sophomore schedule and take the remaining second semester freshmen subjects during the second summer.

5 In the College of Fine Arts, students entering at mid-year are encouraged to plan to spend nine semesters in completing their courses, although it is possible for such students to shorten this time by attending summer sessions. From February to June, students who enter at mid-year will take mainly technical work and those second semester general studies for which there are no first semester prerequisites, leaving other general studies until the following September.

6 Students who enter the College of Industries or the College of Engineering in February, but who do not attend the following summer session, may be obliged to defer the continuance of their courses until the beginning of second semester of the following college year.

VII. FEES

1 Tuition Fees.

DAY STUDENTS

General Fee, for regular students.....	\$180.00
Student Activities Fee.....	15.00
Breakage Deposit, returnable in part..	5.00
	\$200.00

Payment is made in two installments: \$105.00 at the time of registration for the first semester, and \$95.00 at the time of registration for the second semester. A student who registers for the first time at the beginning of the second semester, pays \$105.00.

General Fee for students who require individual attention.....	\$300.00
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Payment of this fee is made in two initial installments, \$150.00 at the time of registration for the first semester and \$150.00 at the time of registration for the second semester.

Students pursuing short courses and unclassified students who are scheduled with regular classes will pay the same fee as regular students.

2 **Student Activities Fee.** This fee of \$15.00 is applied toward the support of inter-collegiate athletics, musical clubs, student publications and other activities. It entitles each student to a season ticket for general admission to all athletic contests on the home grounds, a subscription to the "Tartan" and a copy of the Student Handbook. The funds are turned over to the three student bodies authorized to disburse them: the Athletic Association, the Board of Student Activities and the Student Council.

3 Locker Key Deposit. Each student who pays the General Fee is entitled to the rental of a locker; but he is required to make a key deposit of \$1.00 which is returned to him at the end of the year, if he has surrendered all keys belonging to the institution.

4 Breakage Deposit. Each student on first entering the institution makes a general breakage deposit of \$5.00. Students are charged for any damage to apparatus, furniture, buildings or other property of the Institute for which they are responsible. Damage to property that cannot be charged to individuals is charged against the breakage deposits of all students in the department where the damage occurs. If a student's charges for breakage at any time exceeds his deposit, he is required to make an additional deposit. Any unused portion of the breakage deposit is returned to the student when he completes his course or withdraws from the institution. An upperclassman, on registering, is called upon to make a new general breakage deposit only when the balance to his credit from the previous year is less than \$2.00.

5 Credit to Pittsburgh Students. Each student who is a resident of Pittsburgh, and was enrolled during the academic year 1920-'21 is entitled to a credit of \$15. a year until he shall have completed his course. Beginning with the year 1921-'22, fifty competitive scholarships, each with a value of \$100.00 a year for four years are offered each year to entering freshmen schools or other preparatory schools of Pittsburgh.

6 Late Registration. A charge of \$1.00 a day, to a maximum of \$10.00, is made to students who register later than the official date of registration.

7 Graduation Fee. A charge of \$5.00 is made for each diploma or certificate awarded at the completion of a course. This fee is payable at the time of registration for the semester in which the diploma is awarded.

VIII. EXPENSES

1 FOR MEN. The approximate cost of a year's study at Carnegie Institute of Technology, with respect to the items which are more or less fixed, is \$641. This total does not include clothes, car-fare, or incidentals, as these items vary widely with individuals. It does include (1) the General Fee of \$180, (2) breakage deposit, \$5; (3) student activities fee, \$15; (4) books and supplies, averaging \$45; (5) dormitory room for year, \$108; and (6) board at the campus restaurant for 36 weeks, averaging \$8.00 per week, \$288.

2 Although many students earn part of their expenses by outside work, it is not recommended that a Freshman should come to the Institute without having in hand or in sight, sufficient funds to pay seventy-five per cent. of his expenses for the first year. This amount is approximately \$500. It is vitally essential that a Freshman should devote practically his entire time for the major portion of the first year in adjusting himself to his college work and carrying it successfully.

(See Section X.)

IX. DORMITORIES, ROOMS AND BOARD

1 Applicants for admission to Carnegie Institute of Technology have opportunity to signify their desire for dormitory accommodations on the original application submitted for entrance. To those signifying such desire, a special dormitory circular and application will be sent in due time. Others should send a request for this circular, after April 1st, direct to the Dean of Men or the Dean of Women, as may be appropriate.

2 In general, better accommodations for the same money can be secured in the dormitories than outside. The dormitories are located on the campus and are owned and operated by the Institute. It is the recommendation of the administrative officers of the Institute that as many freshmen as possible room in the dormitories, in order to place themselves

X. STUDENT PLACEMENT BUREAU

1 A large number of students at Carnegie Institute of Technology are young men and women who find it necessary to assist themselves financially by outside work during residence. The Student Placement Bureau, which the Institute conducts as one of its regular departments, is organized to help such students support themselves, at least in part. It endeavors to secure for them suitable positions. For men, positions as draftsmen, tracers, power-plant operators, caretakers of grounds, chauffeurs, salesmen, ushers, waiters, etc., are open. Men

8 Admission to Classes. A student is not admitted to classes until he presents to the instructor a receipt, bearing the Cashier's stamp, showing that the fees are paid. The privileges of class attendance are withheld from a student delinquent in the payment of fees.

9 Refund for Withdrawal. Students who withdraw from the Institute for a good reason, within eight weeks after the opening of the semester, are granted a refund of a portion of the fees paid, in accordance with the following schedule:

1st week	—	\$90.00	plus balance of breakage deposit
2nd	"	—	\$50.00 " " " "
3rd	"	—	\$45.00 " " " "
4th	"	—	\$40.00 " " " "
5th	"	—	\$35.00 " " " "
6th	"	—	\$30.00 " " " "
7th	"	—	\$25.00 " " " "
8th	"	—	\$20.00 " " " "

After eighth week, none.

10 Books and Supplies. The cost of text-books, stationery, drafting instruments, laboratory and studio supplies, and other materials of instruction purchased by the student varies with the different courses. It averages about \$45.00 for the year, and rarely exceeds \$75.00. Included in this estimate are the payments of special laboratory fees and the cost of materials and supplies purchased by the students in certain laboratories, shops and studios.

11 Graduate Students. Graduate Students pay the same General Fee as Undergraduates, \$180.00. They do not pay the Student Activities Fee or the General Breakage Deposit. The General Fee is payable in two equal installments, at the time of registration for the first and second semesters.

3 FOR WOMEN. The approximate cost for women of a year's study at Carnegie Institute of Technology may vary from about \$650 to \$700.00. This total does not include clothes, car-fares, or incidentals, as these items vary widely with individuals. It does include (1) the general fee of \$180, (2) breakage deposit of \$5; (3) student activities fee of \$15; (4) books and supplies, averaging \$45; (5) dormitory room and board, varying with the size and location of the room, from \$352 to \$415, including breakage deposit of \$10; (6) luncheons on school days, in the women's cafeteria.

4 It is possible for women students to earn part of their expenses by outside work, but it is usually unwise for them to expect to earn all expenses, on account of the heavy strain imposed on the health. It is almost necessary for a Freshman to have on entering, money enough for tuition, room and board.

in an environment over which the Institute has supervision and for which it is responsible.

3 For women having rooms in the dormitories board is provided in the house. The Institute also maintains a restaurant on the campus, where board may be had by men and women on the cafeteria plan.

4 The offices of the Dean of Men and the Dean of Women furnish lists of rooms in private houses in districts within a reasonable distance of the Institute. These lists are available without charge, upon the student's arrival.

5 A number of the national fraternities maintain chapter houses near the Institute. Fraternity men entering from other institutions may obtain information from the Dean of Men.

should come prepared to pay seventy-five per cent. of their expenses for the first year. For women, it is not recommended that heavy outside work be undertaken. Women should come with funds sufficient to pay living expenses. Incidental expenses can be met by part-time clerical work, tutoring, caring for children in the evening, clerking, etc.

2 The services of the Bureau are free and at the disposal of any student of the Institute. The Bureau is located in the Central Building.

(See Section VIII.)

XI. SCHOLARSHIPS

1 The Institute does not offer any freshman scholarships to students not residents of Pittsburgh.

2 Fifty competitive scholarships for Freshmen who are residents of Pittsburgh, each with a value of \$100 per year for four years, are offered for 1923-1924. Candidates for these scholarships must be graduates of high or preparatory schools of Pittsburgh. Applicants for these scholarships should be made direct to the principal of the school concerned.

3 A considerable number of upper-class scholarships are offered by the Institute and by private donors, ranging from the remission of the General Fee of \$180 upwards. These scholarships are awarded largely on the basis of the scholastic performance of the preceding year. Information in regard to them can be secured from the Dean of Men or the Dean of Women, as may be appropriate, after the student has registered at the Institute.

XII. REGISTRATION

1 Registration for the year 1923-1924 will take place on September 17th.

2 Students admitted to degree courses in the Colleges of Engineering, Industries, and the Margaret Morrison Carnegie College entitled to register will receive, shortly before registration day, a "Permit to Register;" this must be presented at the registration room. If the applicant has received notification of admission, but does not receive a permit to register

he should call at the Office of the Registrar for the permit, in time for registration on September 17th.

3 Applicants admitted to the College of Fine Arts will receive the permit to register at the time of the personal interview. (See Section XVII). On September 17th the first payment of the general fee is due.* For late registration a penalty of one dollar a day will be imposed, up to a maximum of ten dollars. (*See Section VII.)

XIII. SUMMER SESSION

1 During the Summer Session of 1923 courses in the College of Engineering and the majority of the courses in the College of Industries are scheduled for eight weeks, June 25 to August 18; all courses in the College of Fine Arts and in the Margaret Morrison Carnegie College are scheduled for six weeks, July 2 to August 11. All courses for teachers are scheduled for the six week period. A special course in coal mining will extend from June 25 to July 21.

2 The work of the Summer Session is arranged to meet the needs of teachers, undergraduate students and others interested in technical subjects.

3 The requirements for admission to summer courses are, in the main, the same as those for the regular college year. However, upon the recommendation of the departments concerned, applicants may be admitted to those subjects for which they are adequately prepared, even though they have not met all the entrance requirements of the college in which they are taking their work. Admission to summer courses does not

necessarily imply admission to degree courses of the regular college year.

4 The fee (except as modified below) for students taking nine semester units of class work or less is \$25.00, for those carrying more than nine but not more than eighteen units, \$35.00, for those taking more than eighteen units, \$45.00. The usual maximum schedule in the Summer Session is twenty-seven semester units (or fifty-four work hours a week). A separate fee of \$35.00 is charged for individual lessons in music. The fee for special students requiring individual attention is \$66.66 for the eight weeks session. A materials charge is made in certain laboratory and shop courses.

5 A Preliminary Announcement of the Summer Session is issued in January or February; the final Announcement of Summer Courses, containing detailed information concerning schedules and subjects of instruction, is issued in March or early in April. Either of these publications may be obtained by addressing the Registrar.

XIV. STUDENT HEALTH

1 The Institute maintains a Department of Student Health, the staff of which consists of the Head of the Department, two resident physicians, four instructors in Physical Education, and several consulting physicians. A careful medical and physical examination is made of every freshman student. Courses of lectures are given to all first-year students at the Institute. All students are entitled to medical attention without expense, when attended by an Institute physician.

2 To keep all students in good health is the first aim of the courses in Physical Education. Experience has taught that

other objectives, such as good posture, physique and sportsmanship, alertness, agility, neuro-muscular control and the play spirit, must also be kept in mind, as many of our students have yet to attain their full physical development, and have had little previous physical training.

3 Three periods a week are the requirements of the Institute for all students, in so far as facilities allow. Definite instruction (outdoors when possible) in running, jumping, marching, calisthenics, baseball, cageball, soccer, tumbling, apparatus work, boxing, wrestling, folk-dancing and group games is given.

XV. REQUIREMENTS FOR DEGREES

1 The usual Bachelor's, Master's, and professional degrees in pure and applied science and the arts are conferred by the Board of Trustees, upon the recommendation of the several faculties. A charge of five dollars is made as a graduation fee in all colleges. Students will not be graduated until all financial obligations to the Institute have been met.

2 **BACHELOR'S DEGREE.** A candidate for the degree of Bachelor of Science or Bachelor of Arts must spend four years in resident study, unless he enters with advanced training, but at least one year in resident study is required. To obtain the degree, the student must secure the credit units assigned to a prescribed course of study.

3 A student who has a degree from another institution, but enters at the Institute in a course not closely allied with his previous college work, enters as an undergraduate, becoming a candidate for the bachelor's degree in the new course.

4 An undergraduate unit represents one hour per week for one semester of the student's time spent in recitation, lecture, laboratory, shop or study. Thus, a fifteen unit course in mathematics is one requiring five hours in lecture or recitation and ten hours of outside preparation.

5 **PROFESSIONAL DEGREE.** A candidate for an engineering degree must be a graduate of the Carnegie Institute



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of Technology and must present evidence that he has held, for two years subsequent to his having obtained a bachelor's degree, a responsible position in charge of engineering work along the line of his course of study, and must present a satisfactory thesis on work with which he has been connected.

6 MASTER'S DEGREE. To become eligible for the Master's degree the candidate must have received a Bachelor's degree from an institution of recognized standing, complete one year of full-time resident study or its equivalent in part-time resident study during two or more years, at least one-half

of a minimum of 108 units of work being in graduate courses. Within thirty days after registration, the student's schedule of studies, as prescribed by the department and approved by the faculty concerned, shall be submitted to the Educational Senate for approval. In addition to written examinations in the subjects pursued, the candidate is required to pass an oral examination by a committee of the faculty. In the College of Fine Arts, a demonstration or an exhibition, satisfactory to the faculty, may be submitted for written or oral examination.

XVI. PUBLICATIONS OF THE INSTITUTE

1 Carnegie Institute of Technology publishes for general distribution the following bulletins:

Catalog of College of Industries
Catalog of College of Fine Arts
Catalog of College of Engineering
Catalog of Margaret Morrison Carnegie College for Women
Catalog of Division of Cooperative Research
Suggestions Concerning the Choice of a Course in Engineering
Book of Views

Bulletin of Cooperative Mining Courses

Announcement of Summer Courses

Announcement of Night Courses

Register of Graduates

2 No charge is made to prospective students for the Institute publications, except for the Register of Graduates, for which one dollar is charged.

3 For any of these bulletins the Registrar should be addressed.

XVII. CALENDAR

Spring Entrance Examinations.....June 21, 22, 1923
(Also for removal of Entrance Conditions).

SUMMER SESSION, 1923

Registration, eight week courses.....Monday, June 25
Registration, six week courses.....Monday, July 2
Legal Holiday, Independence Day.....Wednesday, July 4
Last Day of Summer Session.....Saturday, August 18

FIRST SEMESTER, 1923 (18 Weeks)

Autumn Entrance Examinations { Thursday, Aug. 30
(Also for removal of { Friday, Aug. 31
Entrance Conditions)

Advanced Standing Cases Rated.....Thursday, Sept. 13

Interviews for Admission { Tuesday, Sept. 11
..... { Wednesday, Sept. 12
..... { Thursday, Sept. 13
..... { Friday, Sept. 14

*Technical Tests in College of Fine Arts { Monday, Sept. 10
..... { Tuesday, Sept. 11
..... { Wednesday, Sept. 12
..... { Thursday, Sept. 13
..... { Friday, Sept. 14

(For Department of Drama, the technical test will occupy the entire week of Sept. 10).

Registration and first payment General Fee, Monday, Sept. 17

First General Assembly, 10 A. M.....Tuesday, Sept. 18

Class Contests, 3 P. M. Tuesday, Sept. 18

Classes begin Wednesday, Sept. 19

Carnegie Day to be observed on.....Friday, Nov. 23

Thanksgiving Recess, no classes..... { Thursday, Nov. 29
..... { Friday, Nov. 30
..... { Saturday, Dec. 1

Christmas Recess Begins.....Saturday, Dec. 15

SECOND SEMESTER, 1924 (18 Weeks)

Mid-year Entrance Examinations.....Jan. 23, 24
(Also for removal of Entrance Conditions).

*Technical Test in College of Fine Arts...Jan. 28 to Feb. 1.

Advanced Standing Cases rated.....Feb. 1

Registration and payment of General Fee.....Feb. 4

*For the departments of Applied Art, Painting and Illustration, and Sculpture, the applicant may appear on any two consecutive days of the four, for the Department of Music the test must be arranged for in advance by appointment, by addressing the Curator of the Department. For the Department of Drama, the applicant must be present all five days.

ALAN BRIGHT,
Registrar.